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Mazdoor Kisan Shakti Sangathan

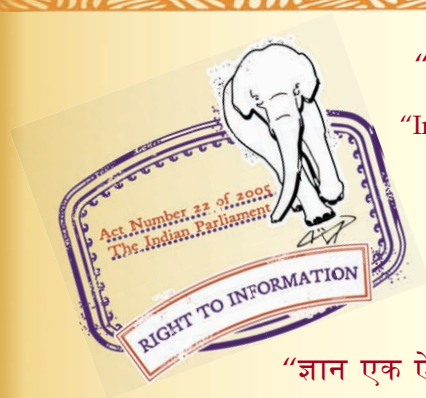
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 827 (1966): Sinew Guts for Tennis and Badminton Rackets
[PCD 22: Sports Goods]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

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Indian Standard
SPECIFICATION FOR
SINEW GUTS FOR TENNIS AND
BADMINTON RACKETS

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR SINEW GUTS FOR TENNIS AND BADMINTON RACKETS (Revised)

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Indian Standard
SPECIFICATION FOR
SINEW GUTS FOR TENNIS AND
BADMINTON RACKETS
(Revised)

0. FOREWORD

0.1 This Indian Standard (Revised) was adopted by the Indian Standards Institution on 14 June 1966, after the draft finalized by the Sports Goods Sectional Committee had been approved by the Consumer Products Division Council.

0.2 This standard, dealing with sinew guts for tennis and badminton rackets, was first published in 1956 as a tentative standard. It is one of a series of Indian Standards on sports goods and gymnastics equipment prepared on the recommendation of the Export Promotion Committee of the Government of India. Other standards published so far in the series are given on page 7.

0.3 In this revision, details of manufacture of sinew guts have been specified more clearly. The range of variation of nominal diameter of unstrung gut for tennis rackets has been narrowed down. Opportunity has also been taken to use rationalized metric values.

0.4 This standard contains clauses which call for agreement between the purchaser and the supplier and which permit the purchaser to use his option for selection to suit his requirements. The relevant clauses are **4.2** and **7.1**.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS:2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the material and dimensional requirements for sinew guts used for stringing tennis and badminton rackets.

*Rules for rounding off numerical values (*revised*).

2. MATERIAL

2.1 The guts shall be made of dried sinews of cow or bull and shall not have any fat on them.

3. MANUFACTURE

3.1 The sinews shall be suitably pounded to make them into strands. The strands shall be properly processed, spun, dried under tension and smoothened.

4. REQUIREMENTS

4.1 Dimensions — The length and diameter of guts shall be as given in Table 1.

4.2 Colour — Normally, the guts shall be of a colour natural and characteristic to them. If required by the purchaser, the guts may be supplied in orange, red or black colour or in a combination of any two of these colours.

4.3 Breaking Strength — The guts shall have the minimum breaking strength as specified in Table 1.

TABLE 1 REQUIREMENTS FOR GUTS

(*Clauses 4.1 and 4.3*)

SL No.	CHARACTERISTIC	TENNIS	BADMINTON
i)	Length, mm:		
a)	Main string	$6\,400 \pm 80$	$5\,800 \pm 80$
b)	Cross string	$5\,500 \pm 80$	$5\,200 \pm 80$
ii)	Nominal diameter (unstrung), mm	1.25 to 1.40	0.80 to 1.00
iii)	Breaking strength, kgf, <i>Min</i>	22.5	14.0

5. PACKING

5.1 The guts shall be coiled and wrapped in cellophane film and sealed in polyethylene or butter-paper bags. Alternatively, after being wrapped in cellophane film, they shall be mounted on cardboard and, finally, covered with cellophane film.

6. MARKING

6.1 Each package shall be marked with the following information:

- Manufacturer's name ;
- Year of manufacture ;
- Purpose for which the gut is intended, that is, 'tennis' or 'badminton' ;

- d) Length of the gut; and
- e) The words 'Made in India'.

6.1.1 The product may also be marked with Standard Mark.

6.2 The use of the Standard Mark is governed by the provisions of *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The details of conditions under which the licence for the use of Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

7. SAMPLING

7.1 Sampling and acceptance criteria for sinew guts shall be as agreed to between the purchaser and the supplier. A recommended scheme for the same is given in Appendix A.

A P P E N D I X A

(Clause 7.1)

RECOMMENDED SAMPLING SCHEME AND CRITERIA FOR SINEW GUTS

A-1. LOT

A-1.1 In any consignment, all the sinew guts (packages) of the same type and belonging to the same batch of manufacture shall constitute a lot.

A-1.1.1 Each lot shall be tested separately to ascertain its conformity to the requirements of this standard.

A-2. SELECTION OF SAMPLES

A-2.1 The number of guts packages to be selected at random from the lot shall be in accordance with col 1 and 2 of Table 2.

A-3. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-3.1 The guts selected according to **A-2.1** shall be inspected for dimensions and colour.

TABLE 2 SAMPLE SIZE AND CRITERIA FOR CONFORMITY

(Clauses A-2.1, A-3.2 and 3.3)

LOT SIZE (NUMBER OF SINEW GUTS IN THE LOT)	SAMPLE SIZE (NUMBER OF SINEW GUTS TO BE SELECTED)	ACCEPTANCE NUMBER	SUB-SAMPLE SIZE
(1)	(2)	(3)	(4)
Up to 100	13	1	3
101 „ 150	20	1	4
151 „ 300	32	2	5
301 „ 500	50	3	6
501 „ 1 000	80	5	8
1 001 and above	150	7	10

A-3.2 For breaking strength, the number of guts to be selected from the guts already inspected under **A-3.1** and found satisfactory with respect to all the characteristics mentioned therein shall be in accordance with col 4 of Table 2.

A-3.3 Criteria for Conformity — The lot shall be declared as conforming to the requirements of this standard if the following conditions are satisfied:

- a) The number of defective guts with respect to any one or more of the characteristics inspected for in **A-3.1** does not exceed the corresponding acceptance number given in col 3 of Table 2.
- b) The value of the expression $\bar{X} - 0.6 R$ is not less than the relevant specified minimum value; $\bar{X}$ (average) and R (range) being computed from the test results for breaking strength.

NOTE 1 — Average ($\bar{X}$) is the value obtained by dividing the sum of test results by the number of test results.

NOTE 2 — Range (R) is the difference between the maximum and the minimum of the test results.

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